

ABSTRACT

A method for producing ^[To produce] a silicon torsion spring ^[by means of which] capable, for example, of reading the rotation rate in a microstructured torsion spring/mass system. The system ^[can be read, the aim being to achieve] that is produced achieves a low torsional stiffness compared to a relatively high transverse stiffness in the lateral and vertical directions. The ^[invention] method proceeds from a wafer or wafer composite and, ^[after] upon suitable mask coverage, a spring with a V-shaped cross section is formed by anisotropic wet-chemical etching which preferably extends over the entire wafer thickness and is laterally delimited only by ^[surfaces is produced by anisotropic wet-chemical etching] [111] planes. Two of the wafers or wafer composites ^[which have been prestructured] prepared in this way, are rotated through 180° and joined to one another oriented ^[and] mirror-symmetrically with respect to one another, so that overall the desired X-shaped cross section is formed.

[A particular advantage of the invention is that the production technology of the laterally and vertically rigid twist spring is relatively simple.]